

PATENT APPLICATION

Docket No. 13316/3277 (Formerly 2777/3277)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of PURI, Atul et al.

Application No.: 10/811,982

Filed: March 30, 2004

For RATE AND QUALITY CONTROLLER

FOR H.264/AVC VIDEO CODER AND SEQUENCE ANALYZER THEREFOR

Group Art Unit: 2631

Examiner: To Be

Assigned

Customer No.: 23838

## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

MAIL STOP AMENDMENTS Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir

Pursuant to 37 CFR § 1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom. The filing of this Information Disclosure Statement and the enclosed PTO Form No. PTO/SB/08, shall not be construed as an admission that the information cited is prior art, or is considered to be material to patentability as defined in 37 C.F.R. § 1.56(b). It is believed that no fees other than those indicated below are due, but authorization is hereby given to charge any additional fees due, or to credit any overpayment, to deposit account 11-0600.

This Information Disclosure Statement is being filed (a) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. §1.53(d), (b) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, (c) before the mailing date of a first Office Action on the merits in the present application, OR (d)

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before the mailing of a first office action after filing of a request for continued examination. No certification or fee is required.

An English-language Abstract of non-English language reference 87 is attached hereto.

In references 136 and 156, the cited chapters of *Digital Multimedia Standards* and *Multimedia Systems*, *Standards*, *and Networks* are considered relevant. In order that the Examiner may note all chapters of these books, copies of the tables of contents are also enclosed. If the Examiner desires copies of any of the other chapters of these books, it is requested that he/she contact the undersigned.

In accordance with U.S. practice, copies of the U.S. references are not included. Copies of the following references are attached:

87-100	118	133	139	145	155
105	120	134	140	147	156.
108	125-127	136	142	148	
115	130	137	143	150	

Respectfully submitted,

KENYON & KENYON

Date: July 8, 2005

Kenyon & Kenyon

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Substitute for form 1449APTO eduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Complete if Known Application Number 10/811.982 INFORMATION DISCLOSURE Filing Date 03/30/2004 STATEMENT BY APPLICANT First Named Inventor PURI, Atul Art Unit 2631 (Use as many sheets as necessary) Examiner Name to be assigned Sheet of 10 Attorney Docket Number 13316/3277

			U.S. PATENT D	OCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant
Initials *	No.1	Number - Kind Code <sup>2</sup> (# known)	MM-DD-YYYY	Cited Document	Passages or Relevant Figures Appear
	1	US- 2,905,758	09/22/1959	Graham	
	2	US- 4,245,248	01/13/1981	Netravali et at.	
	3	US-4,394,680	07/19/1983	Watanabe	
	4	US- 4,717,956	01/05/1988	Moorhead et al.	
	5	US- 4,920,414	04/24/1990	Remus et at.	
	6	US- 4,958,226	09/18/1990	Haskell et al.	
	7	US- 4,999,705	03/12/1991	Puri	
	8	US-5,001,559	03/1991	Gonzales et al.	
	9	US- 5,086,346	02/04/1992	Fujisawa	
	10	US-5,116,287	05/26/1992	Hironaka et al.	
	11	US- 5,117,283	05/26/1992	Kroos et al.	
	12	US-5,134,476	07/28/1992	Aravind et al.	
	13	US-5,136,659	08/04/1992	Kaneko et al.	
	14	US-5,170,264	12/08/1992	Saito et al.	
	15	US- 5,189,526	02/23/1993	Sasson	
	16	US- 5, 194,941	03/16/1993	Grimaldi et al.	
	17	US- 5,196,933	03/1993	Henot	
	18	US-5,214,507	05/25/1993	Aravind et at.	
	18	US-5,214,721	05/25/1993	Fukuhara et al.	
	20	US-5,227,878	07/13/1993	Puri et al.	
	21	US-5,247,590	09/21/1993	Fukuhara et al.	
	22	US- 5,253,055	10/12/1993	Civanlar et at.	
	23	US-5,253,056	10/12/1993	Puri et at.	
	24	US-5,270,813	12/14/1993	Puri et al.	
	25	US- 5,278,646	06/11/1994	Civanlar	
	26	US-5,345,317	09/06/1994	Katsuno et al.	
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	31	US-5,465,119	11/07/1995	Demos	
	32	US- 5,467,136	11/14/1995	Odaka et al.	

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Sub	Substitute for form 1449B/PTO				Complete if Known	
161	INFORMATION DISCLOSURE		Application Number	10/811,982		
				Filing Date	03/30/2004	
S	IAIEMEN	IBY	PPLICANT	First Named Inventor	PURI, Atul	
				Art Unit	2631	
	(Use as many sheets as necessary)			Examiner Name	to be assigned	
She	eet 2	of	10	Attorney Docket Number	13316/3277	

			U.S. PATENT D	OCUMENTS	
Examiner Initials No.1 Document Number Number Number - Kind Code <sup>2</sup> (# known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	33	US- 5,473,376	12/05/1995	Auyeung	
	34	US- 5,488,418	01/30/1996	Mishima et al.	
	35	US- 5,493,513	02/20/1996	Keith et al.	
	36	US- 5,500,678	03/19/1996	Puri	
	37	US- 5,524,024	06/04/1996	Lin	
	38	US- 5,532,747	07/02/1996	Yoon et al.	
	39	US- 5,539,468	07/23/1996	Suzuki et al.	
	40	US- 5,561,477	10/01/1996	Polit	
	41	US-5,566,002	10/15/1996	Shikakura	
	42	US- 5,592,569	01/07/1997	Li	
	43	US- 5,600,375	4/1997	Wickstrom	
	44	US- 5,619,591	04/08/1997	Tsang et al.	
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	48	US-5,737,022	04/07/1998	Yamaguchi et al.	
	49	US- 5,748,789	05/05/1998	Lee et al.	
	50	US- 5,757,969	05/26/1998	Kim	
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	52	US- 5,764,374	06/09/1998	Seroussi et al.	
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	54	US-5,778,097	07/07/1998	Nickerson	
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	56	US- 5,786,855	07/28/1998	Chen et al.	
	57	US- 5,790,695	08/16/1998	Suwa	
	58	US- 5,812,197	09/22/1998	Chan et al.	
	59	US- 5,818,532	10/06/1998	Malladi et al.	
	60	US- 5,832,115	11/16/1998	Rosenberg	

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INFORMATION DIGGL COURT	Application Number	10/811,982		
INFORMATION DISCLOSURE	Filing Date	03/30/2004		
STATEMENT BY APPLICANT	First Named Inventor	PURI, Atul		
	Art Unit	2631		
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Sheet 3 of 10	Attorney Docket Number	13316/3277		

			U.S. PATENT D	OCUMENTS	
Examiner Cite		Document Number  Number - Kind Code <sup>2</sup> (# known)	Publication Date MM-DD-YYYY Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant Passages or Relevant
	61	US- 5.835,149	11/10/1998	Astle	Figures Appear
	62	US- 5,850,294	12/18/1998	Aposolopoulos et al.	
	63	US- 5.852,473	12/22/1998	Home et al.	
	64	US- 5,852,682	12/22/1998	Kim	
	65	US- 5,859,921	01/12/1999	Suzuki	
	66	US- 5,881,180	03/09/1999	Chang et al.	
	67	US- 5,883,981	03/16/1999	Li et al	
	68	US- 5.912.991	06/15/1999	Jeon et al.	
	69	US- 5,963,257	10/05/1999	Katata et al.	
	70	US- 5,966,468	10/12/1999	Fuilmoto	
	71	US- 5.974.172	10/26/1999	Chen	
	72	US- 5,974,184	10/26/1999	Eifrig et al.	
	73	US-5,978,509	11/02/1999	Nachtergaele et al.	
	74	US- 5.978.510	11/02/1999	Chung et al.	
	75	US- 5,999,189	12/07/1999	Kajiya et al.	
	76	US- 5,999,219	12/07/1999	Boon	
	77	US- 6.005.980	12/21/1999	Eifrig et al.	
	78	US- 6.026,183	02/15/2000	Talluri et al.	
	79	US-6,055,623	12/21/1999	Takahashi et al.	
	80	US-6,057,884	05/02/2000	Chen et al.	
	81	US- 6,097,842	08/01/2000	Suzuki et al.	
	82	US- 6,141,442	10/31/2000	Chen	
	83	US- 6,148,026	11/14/2000	Puri et al.	
	84	US- 6,208,693	03/27/2001	Chen et al.	
	85	US- 6,233,356	05/15/2001	Haskell et al.	
	86	US-6,459,732	10/01/2002	Chen et al.	

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	Substitute f	or form 1449D/PTC	)			Complete if Known
	INFORMATION DISCLOSURE				Application Number	10/811,982
			Filing Date	03/30/2004		
	STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	PURI, Atul
					Art Unit	2631
	(Use as many sheets as necessary)				Examiner Name	to be assigned
	Sheet	4	of	10	Attorney Docket Number	13316/3277

FOREIGN PATENT DOCUMENTS						
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or Applicant of Cited	Pages, Columns, Lines, Where Relevant Passages or Relevant	T
Initials*	No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Date MM-DD-YYYY	Document	Figures Appear	T <sup>6</sup>
	87	EP 0 283 715 A2	09/28/1988	ANT Nachrichtentechnik GmbH		Abs.
	88	EP 0 400 756 A2	12/05/1990	N.V. Philips' Gloeilampenfabrieken Groenewoudseweg		
	89	EP 0 422 404 A2	04/17/1991	International Business Machines Corporation		
	90	EP 0 514 663 A2	11/25/1992	International Business Machines Corporation		
	91	EP 0 517 256 A2	12/09/1992	Sony Corporation		
	92	EP 0 534 350	03/31/1993	Matsushita Electric Industrial Co., Ltd (JP)		
	93	EP 0 540 961 A2	05/12/1993	International Business Machines Corporation		
	94	EP 0 566 219 A2	10/20/1993	Canon Kabushiki Kaisha		
	95	EP 0 582 819 A2	02/16/1994	Sony Corporation		
	96	WO 94/27252 A	11/24/1994	Competitive Technologies, Inc.		<b>T</b>
	97	EP 0 746 159 A2	12/12/1996	Matsushita Electric Industrial Co., Ltd.		
	98	EP 0 753 970 A2	01/15/1997	Sharp Kabushiki Kaisha		1
	99	CA 2,168,641	03/28/2000	Kabushiki Kaisha Toshiba, JP		1

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INFORMATION BIGGI COURS	Application Number	10/811,982
INFORMATION DISCLOSURE	Filing Date	03/30/2004
STATEMENT BY APPLICANT	First Named Inventor	PURI, Atul
	Art Unit	2631
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Sheet 5 of 10	Attomey Docket Number	13316/3277

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, Journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, dry and/or country where published.	
	100	CHEN, T., MPEG4 Video Verification Model VM 5.0, pages 2-192	
	101	FUKINUKI, T.; "Measurement of Movement and Velocity of Moving Objects with Picture Signals"; IE78-67; pages 35-41; Central Research Laboratory; Hitachi, Ltd.; Kokubunji, Tokyo, Japan, 185; and Engilsh translation	
	102	KOGA, T. et al.; "Motion-Compensated Interframe Coding for Video Conferencing"; IE81-54; pages 85-90, C&C Systems Research Laboratories; Nippon Electric Co., Ltd; and English translation	
	103	NONOMIYA, Y., "Motion Correction for Interframe Coding Systems," IE78-6; pages 1-10; General Technology Research Institute; Nippon Broadcasting Association; and English translation	
	104	Web site material, "MPEG-4: A Flexible Coding Standard for the Emerging Mobile Multimedia Applications," http://www.tnt.uni-hannover.de/project/eu/momusys/docs/Paper/IST/pimrc/pimrc.html	
	105	COHEN et al., "Adaptative Differential Coding of Picture Signals Based on Local Contour Prediction," Communications and Knowledge, Partners in Progress, November 29, 30 - December 1, 1976, Dallas, Texas	
	106	PLOYSONGSANG, A. et al., "DCT/DPCM Processing of NTSC Composite Video Signal," IEEE Transactions On Communications, vol. COM-30, no. 3, pp. 541-549, XP002062314, ISSN: 090-6778, 1 March 1982 (1982-03-01)	
	107	CHAM et al., "DC Coefficient Restoration in Transform Image Coding," IEE Proceedings, Vol. 131, Pt. F, No. 7, pages 709 - 713, December 1984	
	108	SEE et al., "Efficient Encoding of DC Coefficients in Transform Coding of Images Using JPEG Scheme," Signal Image and Video Processing, Vol. 1, No. Symp. 24, published 11/06/1991, Institute of Electrical and Electronics Engineers, June 11-14, 1991, pages 404-407, Singapore	
	109	KIM, J. W. et al., "A Transform Domain Classified Vector Quantizer for Image Coding," IEEE Transactions on Circuit and Systems for Video Technology, pp. 3-14, XP002115624, March 1992 (1992-03)	
	110	PURI, A., "Invited address: Video Coding Using the MPEG-1 Compression Standard," AT&T Bell Labs, Holmdel, NJ, 1992 SID intl. Symposium Digest of Technical Papers, Society for Information Display, Playa del Rey, CA, May 1992	
	111	DE NATALE, F. G. B. et al.: "Adaptive DCT For Image-Data Compression," European Transactions on Telecommunications and Related Technologies, vol. 3, no. 4, pp. 359-366, XP000310861, ISSN: 1120-3862, 1 July 1992 (1992-07-01)	

Examiner Signature	Date Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

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INICODM	ATION	DIECL CEUDE	Application Number	10/811,982	
		DISCLOSURE	Filing Date	03/30/2004	
STATEMENT BY APPLICANT		First Named Inventor	PURI, Atul		
			Art Unit	2631	
(Use as many sheets as necessary)		Examiner Name	to be assigned		
Sheet 6		of 10	Attorney Docket Number	13316/3277	

		NON PATENT LITERATURE DOCUMENTS
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, calatog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where publisher.
	112	KOK, C. W. et al.: "Image Coding Using DCT of Wavelet Coefficients," Proceedings of the IEEE-SP International Symposium Time-Frequency and Time-Scale Analysis (CT. No. 92TH-0478-8), pp. 475-478, XP002115825 1992, NY, NY, IEEE, USA ISBN: 0-7803-0805, Victoria, BC, Canada, 4-6 Oct. 1992
	113	TEST MODEL EDITING COMMITTEE, TELECOMMUNICATION STANDARDIZATION SECTOR, STUDY (GROUP 15, EXPERTS GROUP FOR ATM VIDEO CODING (RAPPORTEURS GROUP ON ART OF 0.2/15), INTERNATIONAL ORGANISATION FOR STANDARDISATION ORGANISATION HOLD (STANDARDISATION ORGANISATION MODELS) (TIME NOTATION DISTRIBUTION OF THE NOTATION ORGANISATION ORGANISATION DISTRIBUTION OF THE NOTATION AND INTERNATIONALE DE NORMALISATION ISO-IECUTO://SC29WG11 MPEG93457, "Test MODELS" OF THE NORMALISATION ISO-IECUTO.
	114	PURI A. "Video Coding Using the MPEG Compression Standard." AT&T Bell Labs, Holmdel, NJ, Visual Communications and Image Processing '93, Naskeld et al. Charles/Glitons, Cambridge, MA, pages 1701-11713, Vol. 2094, Part Three, SPIE - The Intl. Society for Optical Engineering, Bellingham, WA, November 8-11, 1993
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			D.		Application Number	10/811,982	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	03/30/2004	
					First Named Inventor	PURI, Atul	
					Art Unit	2631	
	(Use as many sheets as necessary)			necessary)	Examiner Name	to be assigned	
$\overline{}$	Sheet	7	of	10	Attorney Docket Number	13316/3277	_

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INFORMATION DISCLOSURE	Filing Date	03/30/2004	
STATEMENT BY APPLICANT	First Named Inventor	PURI, Atul	
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	Art Unit	2631	
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